

Applicant : Robert W. Hjelmeland
Appln. No. : 10/797,417
Page : 9

REMARKS

Claims 15-33 are pending in the present application. Reconsideration is respectfully requested for the following reasons.

The disclosure has been objected to because, according to the Office Action, the term “interference fit” as used in the specification and claims describes what the Office Action refers to as a “friction fit” and that “interference fit” in the present application should be changed to “friction fit.” Applicant has made such a change to the present application. The Office Action further states that it is unclear that the term “compression arm” means a clamping member similar to that shown in publications cited in the Office Action. Applicant submits that such a clamping member is well known to those skilled in the art and is similar to the member 3402 in Fig. 2 of U.S. Patent Application Publication No. 2005/0216926 to Chang. Accordingly, Applicant submits that the objections to the specification are obviated.

Claims 16 and 19-22 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite. In regard to claims 16 and 21, Applicant has changed the term “interference fit” to “friction fit” as suggested by the Office Action. In regard to the rejection of claims 19-22 as being indefinite for including the term “compression arm,” Applicant submits that such a term is broad and is definite as written. Accordingly, Applicant submits that the claims as pending are currently definite.

Claims 15, 17 and 18 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,793,740 to Nguyen et al. “Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, *arranged as in the claim.*” *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984) (emphasis added). In proceedings before the Patent and Trademark Office, the Examiner bears the burden of establishing a prima facie case of anticipation based upon the prior art. *In re Sun*, 31 U.S.P.Q.2d 1451, 1453 (Fed. Cir. 1993) (unpublished). Applicant respectfully asserts that the Examiner has not yet met his burden of establishing a prima facie case of anticipation with respect to the rejected claims.

Claim 15 defines a method for processing a compact disc comprising placing the compact disc on a rotatable hub such that a throughhole of the compact disc receives said hub,

Applicant : Robert W. Hjelmeland
Appln. No. : 10/797,417
Page : 10

engaging the compact disc with a fan device such that the compact disc is biased farther onto said hub, attaching said fan device to said hub and rotating said hub such that the compact disc and said fan device also rotate. The fan device moves air about the compact disc to thereby carry heat away from the compact disc.

The prior art of record does not disclose or suggest the above noted features of claim 15. According to the Office Action, the embodiment of the apparatus in the Nguyen et al. '740 patent as disclosed in Fig. 2 anticipates claim 15. However, the embodiment illustrated in Fig. 2 of the Nguyen et al. '740 patent does not inherently and necessarily include all of the steps of claim 15. As illustrated in Fig. 2 of the Nguyen et al. '740 patent, the CD ROM drive 22 includes a hub 28. The CD ROM drive 22 includes a motor 24 having a drive spindle 26 with an upper end 26a of the drive spindle 26 extending upwardly through a cylindrical hub 28, having at its bottom end a rigidly enlarged annular flange 30. See lines 34-40 of column 3 of the Nguyen et al. '740 patent. According to the Nguyen et al. '740 patent, "the hub 28 is sized to be grippingly received in the central circular opening 22 of a compact disc 34, with a central portion of the compact disc 34 being supported at a top of the flange 30." Lines 41-44 of column 3 of the Nguyen et al. '740 patent. Furthermore, according to the Nguyen et al. '740 patent, "the upper end 26a of the spindle 26 is secured to the hollow cylindrical hub by a circumferentially spaced radially extending, circumferentially sloped plate members 36 that function as axial fan blades." Accordingly, the element 28 of the Nguyen et al. '740 patent is a hub and cannot be a fan device as claimed in claim 15. Therefore, the Nguyen et al. '740 patent does not disclose or suggest engaging the compact disc 34 with the blade members 36 (called the fan device in the Office Action) as the disc 34 is spaced from the plate members 36. Furthermore, the blade members 36 do not comprise a fan device that biases the compact disc 34 farther onto the hub 28 as claimed in claim 15. Accordingly, the Nguyen et al. '740 patent does not include all of the steps of claim 15 as set forth in the Office Action. Furthermore, none of the embodiments in the Nguyen et al. '740 patent include engaging a compact disc with a fan device such that the compact disc is biased farther onto the hub. The compact disc 34 is placed onto the hub and the compact disc engagement with the hub is not affected at all

Applicant : Robert W. Hjelmeland
Appln. No. : 10/797,417
Page : 11

by any fan device of the Nguyen et al. '740 patent. Accordingly, claim 15 is in condition for allowance.

Claims 16-22 depend from claim 15, and since claim 15 defines unobvious patentable subject matter as discussed above, claims 16-22 define patentable subject matter. Furthermore, Applicant notes that the Nguyen et al. '740 patent discloses in regard to Fig. 2 that the system draws air through the hub 28 in the direction of line 40 in Fig. 2 or upwardly through the hub in a direction opposite to the line 40 in Fig. 2. Accordingly, the Nguyen et al. '740 patent only discloses moving air through the hub 28 and does not disclose blowing air towards a compact disc or drawing air away from a compact disc. Therefore, claims 17 and 18 are in condition for allowance for these further reasons. Accordingly, claims 16-22 are in condition for allowance.

Applicant notes that claims 16, 19 and 21 have apparently been rejected under 35 U.S.C. §103(a) over the prior art reference and "Applicant's admitted prior art." Furthermore, while the introductory paragraph of the rejection of claims 16, 19 and 21 refers to Japanese Patent Publication No. JP 08-279242, the discussion of the rejection of claims 16, 19 and 21 does not refer at all to Japanese Publication No. JP 08-279242 and only refers to the Nguyen et al. '740 patent. Accordingly, Applicant submits that the rejection of claims 16, 19 and 21 is very confusing, such that the Office Action has not set forth a *prima facie* rejection of these claims. Nevertheless, Applicant will proceed in this response as if the Office Action rejected claims 16, 19 and 21 over the Nguyen et al. '740 patent in view of Applicant's submitted prior art.

The requirements for making a *prima facie* case of obviousness are described in MPEP §2143 as follows:

In order to establish a *prima facie* case of obviousness, three criteria must be met. M.P.E.P. § 706.02(j). Firstly, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *In re Fine*, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Secondly, there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Thirdly, the prior art reference

Applicant : Robert W. Hjelmeland
Appln. No. : 10/797,417
Page : 12

(or references) must teach or suggest all the claim limitations. *In re Royka*, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

In proceedings before the Patent and Trademark Office, the Examiner bears the burden of establishing a *prima facie* case of obviousness based upon the prior art. *In re Fritch*, 23 USPQ 2d 1780, 1783 (Fed. Cir. 1992); M.P.E.P. §2142. Applicants respectfully assert that the Examiner has not yet met the Examiner's burden of establishing a *prima facie* case of obviousness with respect to the rejected claims. Consequently, the Examiner's rejection of the subject claims is inappropriate, and should be withdrawn.

Claim 16 depends from claim 15, and further states that the attachment step includes placing the fan device on a hub, such that a throughhole of the fan device receives the hub with a friction fit. The prior art of record does not disclose or suggest the above noted feature of claim 16. First, claim 16 depends from claim 15, and since claim 15 defines unobvious patentable subject matter as discussed above, claim 16 defines patentable subject matter. Second, the Nguyen et al. '740 patent, even if combined with what the Office Action refers to as Applicant's admitted prior art, would not include all of the features of claim 16. According to the Nguyen et al. '740 patent, the plate members 36 do not include any throughhole. Furthermore, the plate 16 does not include any throughhole of the plate members 26 that receives the hub 28. Accordingly, claim 16 is in condition for allowance.

Claim 19 depends from claim 15, and further states that the engaging step includes using a compression arm to push the fan device into engagement with the compact disc. The prior art of record does not disclose or suggest the above noted features of claim 19. First, claim 19 depends from claim 15, and since claim 15 defines unobvious patentable subject

Applicant : Robert W. Hjelmeland
Appln. No. : 10/797,417
Page : 13

matter as discussed above, claim 19 defines patentable subject matter. Second, since the plate members 36 cannot be engaged with the compact disc 34, no compression arm can be used to push the plate members 36 into engagement with the compact disc 36. Accordingly, claim 19 is in condition for allowance.

Claim 21 depends from claim 15, and further states that the attaching step includes using a compression arm to push the fan device onto the hub with a friction fit. The prior art of record does not disclose or suggest the above noted features of claim 19. First, claim 19 depends from claim 15, and since claim 15 defines unobvious patentable subject matter as discussed above, claim 19 defines patentable subject matter. Second, since the plate members 36 are fixedly connected to the hub 28, no compression arm can be used to push the plate members 36 into engagement with the hub 28. Accordingly, claim 21 is in condition for allowance.

Claims 20 and 22 have been apparently rejected in the Office Action as being rejected under 35 U.S.C. §103(a) as being unpatentable over the Japanese Publication No. JP 08-279242 in view of what the Office Action refers to as Applicant's admitted prior art and further in view of Japanese Publication JP 01-171144. However, Applicant notes once again that the discussion of the rejection of claims 20 and 22 does not refer to the Japanese Publication 08-279242, but only refers to the Nguyen et al. '740 patent. Accordingly, Applicant submits that once again the Office Action has not set forth a *prima facie* rejection of claims 20 and 22 as Applicant is unsure which references are being used to reject these claims. Nevertheless, Applicant will proceed as if the Office Action meant to reject the claims over a combination with the Nguyen et al. '740 patent instead of JP 08-279242.

Claim 20 depends from claim 19 and claim 22 depends from claim 21, and both of these claims further state that the compression arm is integrally formed with the fan device. The prior art of record does not disclose or suggest the above noted features of claims 20 and 22. First, claims 20 and 22 depend from claims 19 and 21, respectively, and since claims 19 and 21 define unobvious patentable subject matter as discussed above, claims 20 and 22 define patentable subject matter. Second, Applicant submits that there is no suggestion or motivation for combining a compression arm with the plate members 36 of the Nguyen et al. '740 patent

Applicant : Robert W. Hjelmeland
Appln. No. : 10/797,417
Page : 14

as such a combination would not allow the compact disc 34 to be placed around the hub as the compression arm would block the hub 28. Accordingly, claims 20 and 22 are in condition for allowance.

New claim 23 defines an apparatus for cooling a compact disc, comprising a rotatable hub having a first end and a second end, the first end of the hub being configured to accept a compact disc thereon by inserting the first end of the hub into a throughhole of the compact disc, an actuator configured to rotate the rotatable hub and a fan device driven by said actuator and configured to move air about the compact disc. The fan device is configured to move relative to the hub.

The prior art of record does not disclose or suggest the above noted features of claim 23. Notably, none of the prior art cited in the Office Action includes a fan device being configured to move relative to a hub along with the remaining elements of claim 23. Furthermore, claims 24-27 depend from claim 23, and further define additional features that are patentable over the art cited in the Office Action. Accordingly, Applicant submits that claims 23-27 are in condition for allowance.

New claim 28 defines a device for at least one of reading and writing to a compact disc, comprising a hub configured to retain the compact disc, at least one propeller attached to said hub, said at least one propeller extending radially outwardly from said hub, an actuator coupled to said hub and configured to rotate said hub such that said at least one propeller moves air about the compact disc and a read/write head, a radially outermost tip of said at least one propeller being closer to said hub in a radial direction than is said read/write head.

The prior art of record does not disclose the above noted features of claim 28. Notably, the prior art of record does not disclose or suggest at least one propeller extending radially outwardly from a hub or that expressly discloses a read/write head, wherein a radially outermost tip of the at least one propeller is closer to a hub in a radial direction than is the read/write head. Accordingly, claim 28 is in condition for allowance.

Claim 29 defines a device for at least one of reading and writing to a compact disc, comprising a hub configured to retain the compact disc, at least one propeller attached to said hub, said at least one propeller extending radially outwardly from said hub and an actuator

Applicant : Robert W. Hjelmeland
Appln. No. : 10/797,417
Page : 15

coupled to said hub and configured to rotate said hub such that said at least one propeller moves air about the compact disc. The at least one propeller has a pitch such that air is moved toward the compact disc when said actuator rotates said hub.

The prior art of record does not disclose or suggest the above noted features of claim 29. The prior art of record does not disclose or suggest at least one propeller extending radially outwardly from a hub and at least one propeller that has a pitch such that air is moved towards a compact disc when an actuator rotates a hub along with the remaining features of claim 29. Accordingly, claim 29 is in condition for allowance.

Claim 30 defines a device for at least one of reading and writing to a compact disc, comprising a hub configured to retain the compact disc, a plurality of propellers attached to said hub and an actuator coupled to said hub and configured to rotate said hub such that said at least one propeller moves air about the compact disc. The plurality of propellers each include a top surface and a bottom surface, said bottom surfaces facing said actuator, said top surfaces of said plurality of propellers defining a plane, said hub having an axis of rotation, said plane being nonperpendicular to the axis of rotation.

The prior art of record does not disclose or suggest the above noted features of claim 30. Notably, the prior art of record does not disclose or suggest a plurality of propellers each including a top surface and a bottom surface, with the top surface of the plurality of propellers defining a plane, the hub having an axis of rotation and the plane being non-perpendicular to the axis of rotation. Accordingly, claim 30 is in condition for allowance. Claims 31-33 depend from claim 30 and are also believed to define patentable subject matter. Accordingly, claims 30-33 are in condition for allowance.

Applicant : Robert W. Hjelmeland
Appln. No. : 10/797,417
Page : 16

All pending claims 15-33 are believed to be in condition for allowance and a Notice to this effect is therefore earnestly solicited.

Respectfully submitted,

December 18, 2006

Date

/Marcus P. Dolce/

Marcus P. Dolce, Registration No. 46 073
Price, Heneveld, Cooper, DeWitt & Litton, LLP
695 Kenmoor, S.E.
Post Office Box 2567
Grand Rapids, Michigan 49501
(616) 949-9610

MPD/msj